

S086 LOAD RING PENETROMETER

Used to determine the bearing strength, compaction degree of subgrades, and also for determining the static penetration resistance of soil.

Supplied complete with "T" handle, proving ring 100 kgf (1 kN) with maximum load pointer and calibration chart, extension rod 500 mm long graduated every 100 mm, removable cone point 30° with 1 sq. in. top area.

Cadmium plated against corrosion.

Weight: 5 kg approx.



S086

S088 PROCTOR PENETROMETER

STANDARD: ASTM D1558

Used to determine in field the moisture-penetration resistance relationship of fine grained soils.

Spring load scale 0-40 kg, subdiv. 1 kg, with direct max. value reading in kg on the sliding rod.

Complete with 9 interchangeable stainless steel needles diameter: 4.52 - 5.23 - 6.40 - 9.07 - 12.83 - 16.54 - 20.22 - 24.79 - 28.55 mm, accessories, carrying case.

Chromed finishing.

Weight: 5 kg approx.



S088

LABORATORY SAMPLE MIXERS

Suitable to mix granular materials like soils and bituminous mixtures, by using a whisk beater, as prescribed by EN, BS Spec.

MODELS

E095N+B028-03 MIXER, 5 LITRE CAPACITY, complete with whisk beater

B025-01N+B025-13N MIXER, 20 LITRE CAPACITY, complete with whisk beater

Technical details:
see p. 94-95



E095N + B028-03

S074N LABORATORY VANE APPARATUS

STANDARDS: BS 1377:7 | ASTM D4648



The Matest Laboratory Vane apparatus offers a swift method for estimating the **undrained shear strength** of soil specimens, serving as an alternative to standard triaxial equipment. This apparatus, based on the original **UK Transport Research Laboratory** design, applies stress to the soil sample based on the calibration spring and vane chosen. The selection of the spring and vane depends on the anticipated soil strength, with larger vanes suitable for soils with low-strength values. The apparatus operates by rotating the vane into the soil sample, and the calibrated spring measures the applied torque. The instrument features **two graduated scales** for applied torque (inner scale) and vane rotation (outer scale).

After the test, the **Undrained Shear Strength (cu)** is calculated by dividing the applied **Torque (T)** by a **constant (K)** determined by the dimensions and shape of the chosen vane.

The vane apparatus comes complete with four calibrated springs and a vane \varnothing 12.7 x 12.7 mm.

Dimensions: 250x300x600 mm

Weight: 11 kg approx.



S074-01N

S074-10N

S074N

S074-06N

S074-07N

S074-09N

ACCESSORIES

S074-06N VANE, \varnothing 12.7 x 25.4 mm

S074-07N VANE, \varnothing 12.7 x 19 mm

S074-09N VANE, \varnothing 25.4 x 25.4 mm

S074-10N UNIVERSAL ATTACHMENT to hold sample tubes from \varnothing 38 to 100 mm

S074-01N MOTORIZING ATTACHMENT with selectable speeds 6 to 12°/min or 60 to 90°/min, conforming to ASTM and BS standards. Power supply: 220V 1ph 50-60Hz 20W

SPARES

S074-08N Vane, \varnothing 12.7 x 12.7 mm

S074-12N Set of 4 calibrated springs